REMARKS/ARGUMENTS

Claims 1-36 are pending in the application.

CLAIM REJECTIONS

Non-Statutory, Non-Obviousness-Type Double Patenting

Claims 1-36

The Examiner has rejected Claims 1-36 as being anticipated by Claims 1-16 of allowed patent application # 10/033,440 assigned to the assignee of the present invention. Applicants respectfully traverse the Examiner's rejection.

The Examiner asserts that Claims 1-16 of allowed patent application # 10/033,440 anticipate every element of claims 1-36 of the present invention. Applicants respectfully disagree. With regard to independent Claim 1, applicants assert that Claims 1-16 of allowed patent application # 10/033,440 fail to recite a memory arbiter that continues to service current lower priority requests for a predefined period if an incoming higher priority request is directed to a same page of memory as the current lower priority requests. Applicants respectfully request that the Examiner point out how Claims 1-16 of allowed patent application # 10/033,440 anticipate these elements of Claim 1.

With regard to independent Claim 6, applicants assert that Claims 1-16 of allowed patent application # 10/033,440 fail to recite a method comprising servicing data in a computer system comprising continuing to process the first memory request for a predefined period if the second memory request is directed to a same page of memory as the first memory request. Applicants respectfully request that the Examiner point out how Claims 1-16 of allowed patent application # 10/033,440 anticipate these elements of Claim 6.

With regard to independent Claim 10, applicants assert that Claims 1-16 of allowed patent application # 10/033,440 fail to recite a computer system comprising a memory controller configured to continue to service current lower priority requests for a predefined period if an incoming higher priority request is directed to a same page of memory as the current lower priority requests. Applicants

respectfully request that the Examiner point out how Claims 1-16 of allowed patent application #
10/033,440 anticipate these elements of Claim 10.

With regard to independent Claim 15, applicants assert that Claims 1-16 of allowed patent
application # 10/033,440 fail to recite a machine readable medium having stored therein a plurality of
machine readable instructions executable by processor to service data, comprising instructions to
continue to process the first memory request for a predefined period if the second memory request is
directed to a same page of memory as the first memory request. Applicants respectfully request that
the Examiner point out how Claims 1-16 of allowed patent application # 10/033,440 anticipate these
elements of Claim 15.

With regard to independent Claim 19, applicants assert that Claims 1-16 of allowed patent
application # 10/033,440 fail to recite a memory arbiter configured to receive memory requests and
corresponding priorities from a microprocessor, and configured to interrupt servicing of higher priority
requests after a predefined number are processed to process lower priority requests for a predefined
period of time. Applicants respectfully request that the Examiner point out how Claims 1-16 of allowed
patent application # 10/033,440 anticipate these elements of Claim 19.

With regard to independent Claim 24, applicants assert that Claims 1-16 of allowed patent
application # 10/033,440 fail to recite a method comprising interrupting servicing of higher priority
requests after a predefined number is processed to process one or more lower priority requests for a
predefined period of time. Applicants respectfully request that the Examiner point out how Claims 1-16
of allowed patent application # 10/033,440 anticipate these elements of Claim 24.

With regard to independent Claim 28, applicants assert that Claims 1-16 of allowed patent
application # 10/033,440 fail to recite a computer system comprising a memory controller configured to
interrupt servicing of higher priority requests after a predefined number is processed to process one or
more lower priority requests for a predefined period of time. Applicants respectfully request that the
Examiner point out how Claims 1-16 of allowed patent application # 10/033,440 anticipate these
elements of Claim 28.

With regard to independent Claim 33, applicants assert that Claims 1-16 of allowed patent
application # 10/033,440 fail to recite a machine readable medium having stored therein a plurality of

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machine readable instructions executable by processor to service data, comprising instructions to interrupt servicing of higher priority requests after a predefined number are processed to process one or more lower priority requests for a predefined period of time. Applicants respectfully request that the Examiner point out how Claims 1-16 of allowed patent application # 10/033,440 anticipate these elements of Claim 33.

35 USC § 102(b)

Claims 1-14

The Examiner has rejected claims 1-14 under 35 USC § 102(b) as being anticipated by Lewchuck (U.S. patent # 6,058,461). Applicants respectfully traverse this rejection.

Regarding independent Claim 1, Applicants assert that Lewchuck fails to disclose a memory arbiter that continues to service current lower priority requests for a predefined period if an incoming higher priority request is directed to a same page of memory as the current lower priority requests. The Examiner asserts that Lewchuck at column 6, lines 63 et. seq. teaches this limitation because "Lewchuck discloses to interrupt a memory operation to perform a higher priority memory operation comprises (sic) inserting the beats for the higher priority memory operation between two beats/cycles out of the four cycles for the lower priority memory operation; therefore the lower priority is still allowed to perform at least for a predefined period of at least two cycles before service (of) the higher priority requests" (Office Action of June 16, 2004; page 4, lns. 20-24 to page 5, lns. 1-2).

Applicants note that the Examiner has characterized Lewchuck as disclosing interrupting a memory operation to perform a higher priority memory operation. However, Applicants respectfully assert that Lewchuck's disclosure of interrupting a memory operation to perform a higher priority memory operation does not anticipate the claimed memory arbiter that continues to service current lower priority requests for a predefined period if an incoming higher priority request is directed to a same page of memory as the current lower priority requests. Importantly, Applicants assert that Lewchuck's disclosure of <u>interrupting</u> a <u>single</u> memory operation and temporarily resuming the interrupted memory operation does not anticipate the claimed <u>continuing</u> to service current lower priority <u>requests</u> for a predefined period. Moreover, Applicants note that Lewchuck fails to disclose

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continuing to service current lower priority requests for a predefined period if an incoming higher priority request is directed to a <u>same</u> <u>page</u> of memory as the current lower priority requests.

With regard to independent Claims 6 and 10, Applicants assert that, following reasoning similar to that provided above with respect to Claim 1, Lewchuck fails to disclose either a method comprising servicing data in a computer system comprising continuing to process the first memory request for a predefined period if the second memory request is directed to a same page of memory as the first memory request, or a computer system comprising a memory controller configured to continue to service current lower priority requests for a predefined period if an incoming higher priority request is directed to a same page of memory as the current lower priority requests.

In conclusion, Applicants assert that independent Claims 1, 6 and 10 and their associated dependant Claims are not anticipated by Lewchuck and respectfully request that the Examiner withdraw his rejection of Claims 1-14 under 35 U.S.C. 102(b).

35 USC § 103(a)

<u>Claims 15-18</u>

The Examiner has rejected Claims 15-18 under 35 USC § 103(a) as being unpatentable over Lewchuck. Applicants respectfully traverse this rejection. Applicants respectfully disagree with the Examiner's assertion that Lewchuck "discloses the invention as claimed...(except)...(Lewchuck) does not particularly disclose a computer readable medium" (Office Action of June 16, 2004; page 6, lns. 20-22). For the same reasons as discussed in detail above with regard to the rejection of Claims 1-14, Applicants assert that Lewchuck does not disclose the invention as claimed in independent Claim 15 regardless of whether or not Lewchuck discloses a computer readable medium or a computer readable medium would have been obvious to one of ordinary skill in the art.

In conclusion, Applicants assert that independent Claim 15 and the associated dependant Claims 16-18 are unpatentable over Lewchuck and respectfully request that the Examiner withdraw his rejection of Claims 15-18 under 35 U.S.C. 103(a).

Claims 19-36

The Examiner has rejected Claims 19-36 under 35 USC § 103(a) as being unpatentable over Lewchuck in view of Iizuka (U.S. patent # 5,699,521). Applicants respectfully traverse this rejection.

With regard to independent Claims 19, 24, 28 and 33, the Examiner acknowledges that Lewchuck fails to disclose a method, memory arbiter and/or a memory controller configured to interrupt servicing of higher priority requests after a predefined number are processed to process lower priority requests for a predefined period of time as claimed. The Examiner then asserts that Iizuka corrects this deficiency in Lewchuck by teaching a "communication system and method...(that) discloses interrupting high priority servicing-data-request to allowing (sic) passing/servicing of nonpriority or low priority data request from starvation" (Office Action of June 16, 2004; page 8, lns. 6-12). Applicants respectfully disagree with the Examiner's characterization of Iizuka. Applicants assert that Iizuka does not teach interrupting servicing of high priority requests to process low priority requests, rather, Applicants note that Iizuka only discloses interrupting fetches of priority data with the fetching of nonpriority data.

Applicants respectfully assert that even assuming that Iizuka discloses interrupting servicing of high priority requests to process low priority requests, which Applicants assert Iizuka does not disclose, Iizuka still fails to correct the deficiencies of Lewchuck because Iizuka fails to disclose interrupting servicing of higher priority requests after a predefined number are processed **to process lower priority requests for a predefined period of time** as claimed. Applicants respectfully request that the Examiner show how Iizuka corrects the deficiencies of Lewchuck with respect to all elements of independent Claims 19, 24, 28 and 33.

In conclusion, Applicants assert that independent Claims 19, 24, 28 and 33 and the associated dependant Claims 16-18 are unpatentable over Lewchuck in view of Iizuka and respectfully request that the Examiner withdraw his rejection of Claims 19-36 under 35 U.S.C. 103(a).

CONCLUSION

In view of the foregoing, it is respectfully asserted that all of the claims pending in this patent application are in condition for allowance.

Should it be determined that an additional fee is due under 37 CFR §§1.16 or 1.17, or any excess fee has been received, please charge that fee or credit the amount of overcharge to deposit account #02-2666.

If the Examiner has any questions, he is invited to contact the undersigned at (503) 264-6473.

Reconsideration of this patent application and early allowance of all the claims is respectfully requested.

Respectfully submitted,

Robert D. Hinchliffe
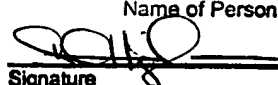Patent Agent
Intel Corporation
Reg. No. 55,268

Dated: September 15, 2004

c/o Blakely, Sokoloff, Taylor & Zafman, LLP
1925 NW Amberglen Parkway, Suite 230
Beaverton, OR 97006
(503) 439-8778

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage in an envelope addressed to Commissioner for Patents, P.O. Box 1 ᵗ²ᵒ, Alexandria, VA 22313 on:

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